

AbstractBalancing device for a suspended element

The present innovation deals with a balancing and equilibration device for suspended elements, in particular for doors of pieces of furniture and windows that can be moved vertically, to allow an easy movement of same and their balanced positioning at any point of their vertical travel.

A main feature of this invention is that of winding up the supporting ropes (8) of the element (6) to be translated in spiroid rims (10C) of a pair of opposing pulleys (10), said pulleys (10) being integral with each other via to a shaft (12) that is rotatable on a bearing structure (1 - 2), said shaft (12) being concentric to a helical spring (22), that comprises one end (22A) integral with said shaft (12), while the other end (22B) is integral with the basis (31) of a friction disc (30), that can be blocked to its support (5) to block the other end (22B) of the spring (22), whose opposite side is bound to turn with the shaft (12), in order to increase or decrease its torsion reaction with the changing of the movement of the pulleys (10), assuring in that way the balancing of the balanced translation of the element (6) on a frame (7) to be vertically covered or uncovered. (Fig. 1)